DFAS System Life Cycle (SLC 6.0)

Introduction

DFAS-DTC
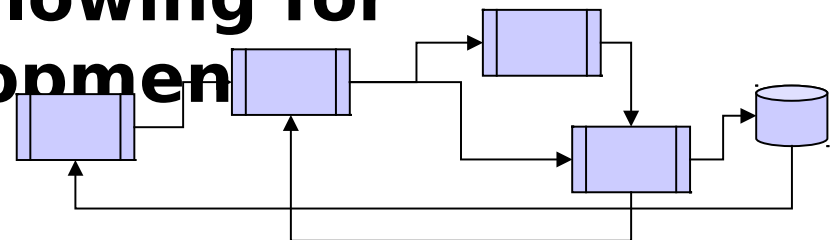**2002 & 2003**

Your Financial Partner @ Work

DFAS System Life Cycle (SLC)

- **What is a Life Cycle?**

- **Life Cycle Management (LCM)**

- **Tailoring for Best Fit to Each Program**

- **The Structure of the DFAS System Life Cycle**
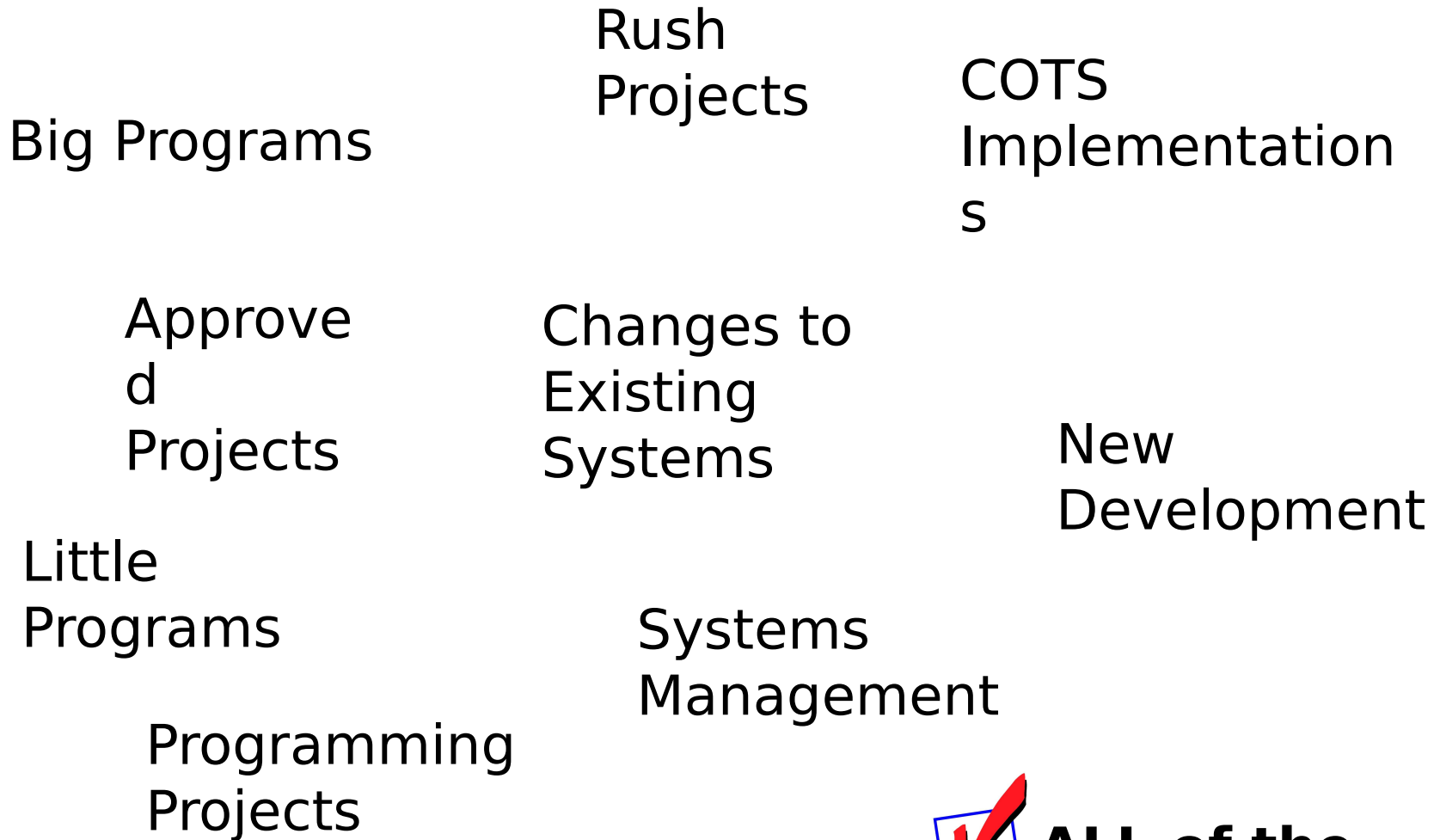
- **What is the Value to DFAS?**

What is a Life Cycle?

- **A Life Cycle**
  - **is an ordered set of activities that occur through the life of a product or project;**
  - **includes the inception of the effort, through the creation of its result, through continuing maintenance, to the phase out of the result;**
  - **may be iterative, allowing for evolutionary development**

Who has a Life Cycle?

Big Programs

Rush Projects

COTS Implementations

Approved Projects

Changes to Existing Systems

New Development

Little Programs

Systems Management

Programming Projects
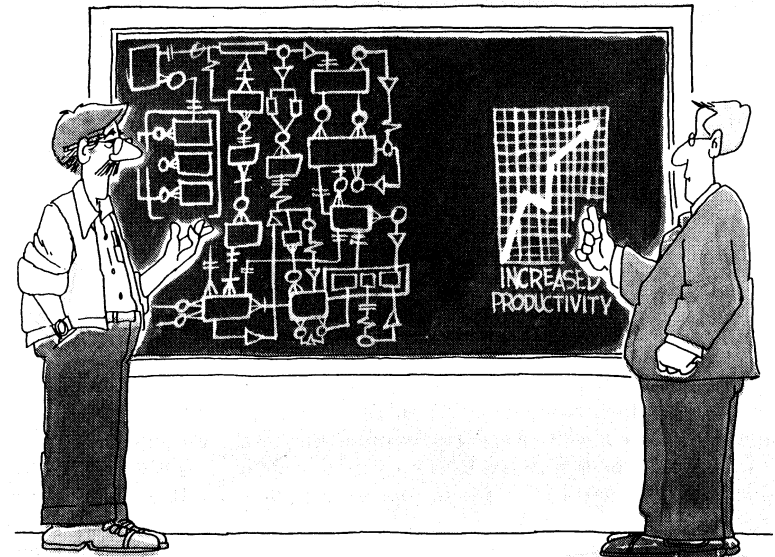
☑ **ALL of the Above**

Life Cycle Management

- **Better Planning and Better Communication**
  - **reduces cost, errors, rework;**
  - **increases confidence, completeness, management support;**
  - **reduces risk.**

The Charges Against LCM

- **It costs extra.**
- **It costs too much.**
- **It's make-work.**
- **It's done after the fact.**
- **It's not really required.**
- **Nobody does it; why do I have to?**
- **I already know how to do my job.**
- **It's documents. I hate documents.**
- **No one uses what it produces.**
- **It does not help the decision process.**
- **It does not contribute to my getting the job done.**
- **If you say "process" one more time, I'll…**

Overwhelming Challenge

DFAS LCM Policy
DFAS 8000.1-R

DoD Acq'n Mgmt Policy
DoD 5000.2-R

IEEE/EIA 12207

FFMR
Blue Book

CMM Level 3

DoD Info Assurance
DoD 5200.40-M

Req'ts Generation
CJCSI 3170.01B

DoD Data Mgmt Policy
DoDD 8320.1

IT Mgmt Policy
Clinger-Cohen Act

Commercial Drivers
• COTS Products
• Agile Pgmg
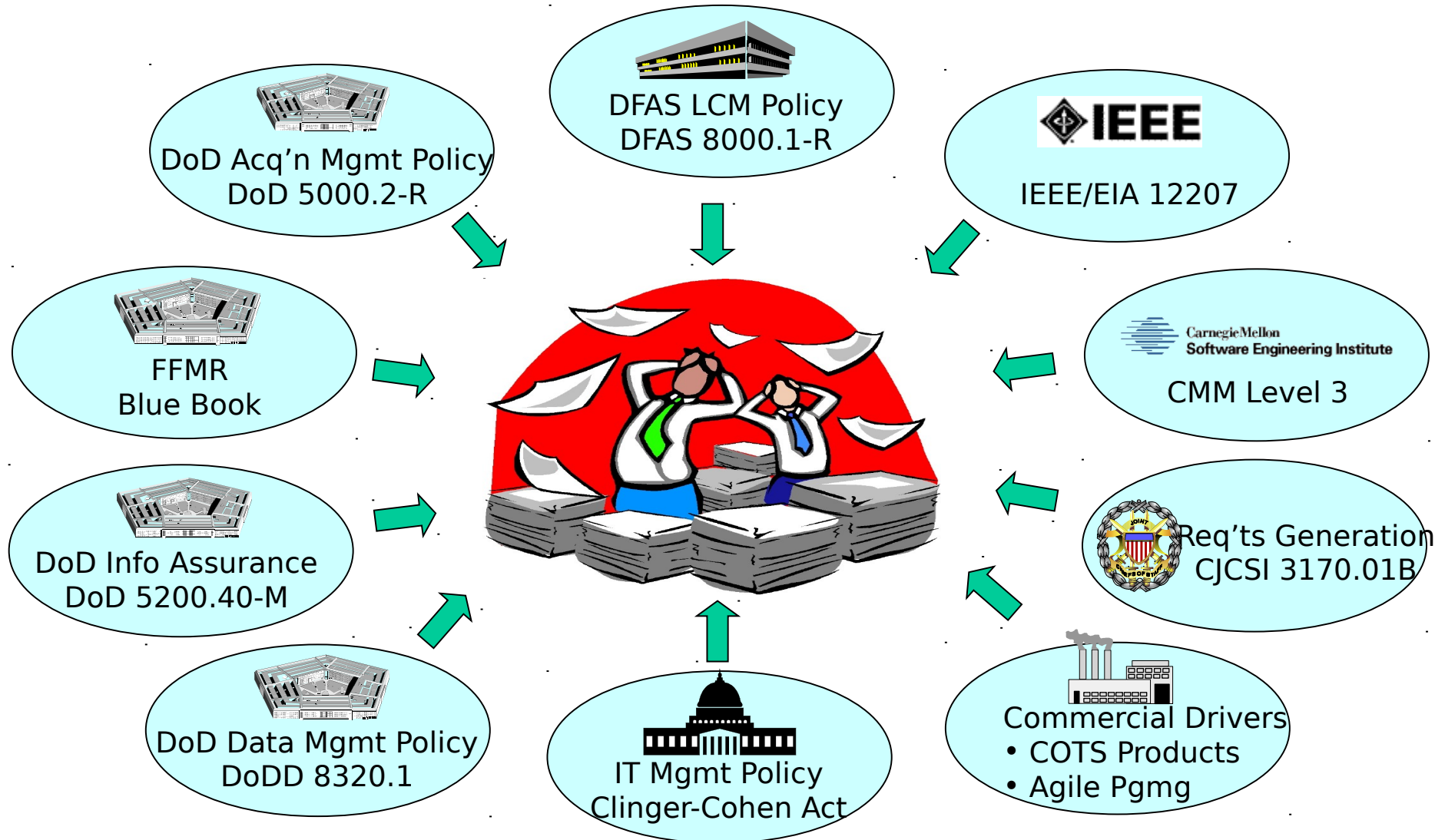
DFAS Life Cycle Objectives

- **Active Customer participation**
- **Accurate and timely implementation of Customer requirements**
- **Realistic and achievable planning**
- **Sound management accountability**
- **Responsible system development, deployment/implementation, and operation**
- **Trusted security administration**
- **Establishment of cost, schedule, and requirements control mechanisms that facilitate high visibility for executive oversight**

System Life Cycle - Benefits (1)

- **Support and encourage the use of program management & software management "best practices"**
  - **IEEE standards**
  - **Industry-proven practices**

- **Plan and execute program activities consistently**
  - **Be able to understand and compare projects across DFAS**
  - **Decisions have the same meaning**
  - **Understand the implications when a program does it a different way**

- **Provide flexibility and visibility to DFAS management, PMs, TPOs, and SMs**
  - **Be able to tailor to the program's situation**

System Life Cycle - Benefits (2)

- **Help PMs and SMs to assess and manage risk**

- **Comply with DoD guidance as a natural part of getting the work done**

- **Support multiple approaches**
  - **Development and COTS-Customization**
  - **Incremental, evolutionary, and traditional**

- **Enable information assurance / security planning**

- **Help create a reliable and supportable system**

Related Initiatives

Portfolio Management

Requirements Integration & Management
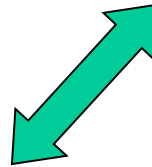
System Life Cycle

Integrate with Requirements Management
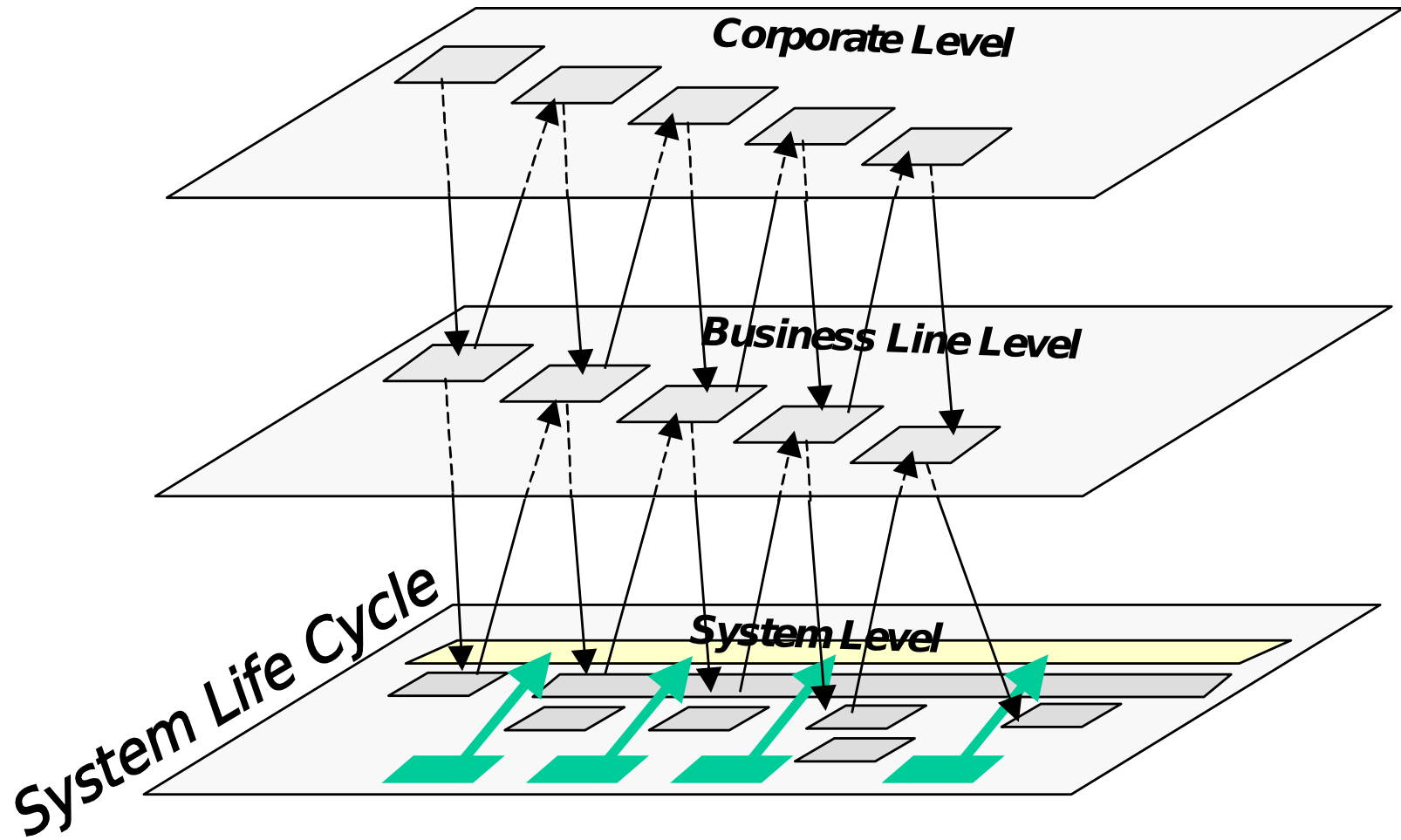
Reduced to One Actionable Framework

DoD Acq'n Mgmt Policy
DoD 5000.2-R

DFAS LCM Policy
DFAS 8000.1-R

IEEE
IEEE/EIA 12207

FFMR
Blue Book

DoD Info Assurance
DoD 5200.40-M

DoD Data Mgmt Policy
DoDD 8320.1

IT Mgmt Policy
Clinger-Cohen Act

DFAS Systems Life Cycle

	Phase 0	Phase 1	Phase 2	Phase 3
Management				
Technical				
Config Mgmt				

CarnegieMellon
Software Engineering Institute
CMM Level 3

Req'ts Generation
CJCSI 3170.01B

Commercial Drivers
• COTS Products
• Agile Pgmg

DFAS System Life Cycle

System Acquisition

System Maintenance

Tailoring from a Pattern

- **Having a Pattern to follow, one can:**
  - **adjust the size,**
  - **fit the nature of a different fabric,**
  - **add trim and appearance features,**
  - **alter sections to fit different needs,**
  - **reuse styles and techniques.**
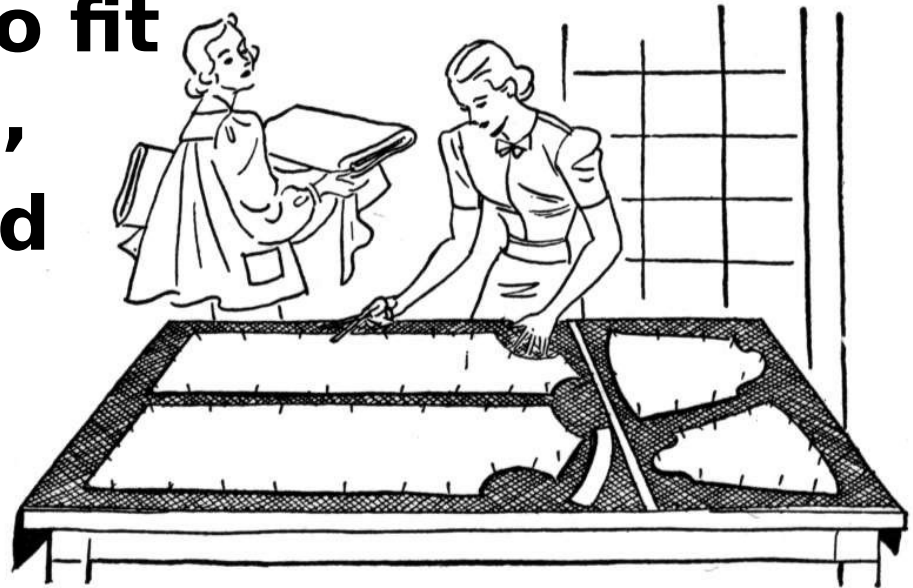
Tailoring the SLC for a Program

- **Programs tailor the SLC to their situation**
  - **Tailoring is based on:**
    - **Implementation Strategy**
      - **Development or COTS or modified COTS**
      - **Incremental, evolutionary, traditional**
    - **Complexity / Cost / Oversight**
      - **(ACAT IAM vs. ACAT IAC vs. ACAT III A,B,C)**
    - **Management Risk**
- **SLC is part of the Acquisition Strategy**
    - **PM briefs the program's tailored SLC at Decision Review**
- **Tailoring assistance provided by DFAS-DTC**
    - **Tailoring expertise; library of "common tailorings"**

What DTC Does to Help Programs

- **Active assistance in SLC tailoring**
  - **Provide LCM expertise**
  - **Identify risks and issues**

- **Help Prepare for Milestone Reviews**
  - **Coaching on Preparing the CIO/BIE Presentation**
  - **Identify issues and hole**
  - **Review Dry Run**
  - **Help understanding key issues from the viewpo of the CIO/BIE Council**
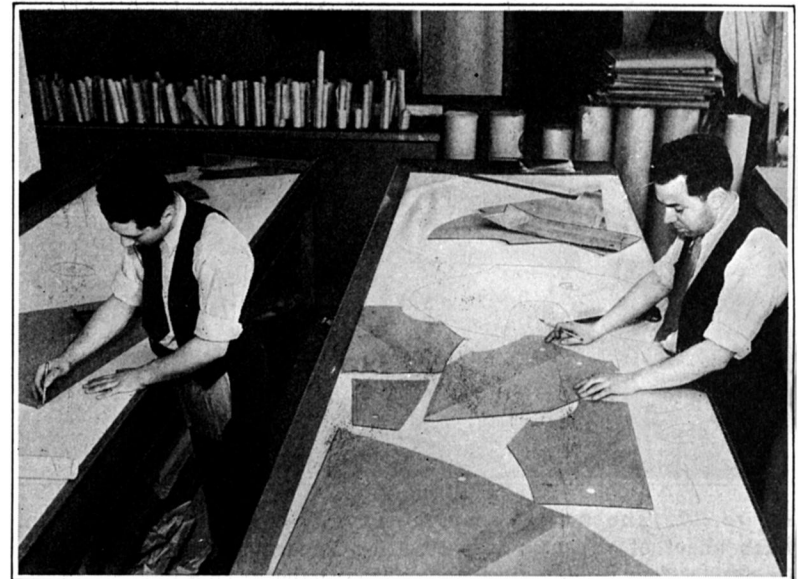
Elements of a System Life Cycle

- **Phases**
- **Activities (Processes)**
- **Information**
- **Reviews & Audits**
- **Milestone decision points**
- **Baselines**
- **Validation & Verification**

SLC Phases

Pre-Systems & Acquisition Development

Concept & Technol. Development

System Development

Production

| User Need | Concept Exploration | Component Adv. Dev't | System Integration | System Demonstration | Low Rate Init Prod'n | Full Rate Prod'n |

SLC Activities that Span Phases

Pre-Systems & Acquisition Deployment User Need	Concept & Technology Development	System Development & Demonstration	Production
Concept Exploration	Component Adv. Dev't	System Integration / System Demonstration	Low Rate Init Prod'n / Full Rate Init Prod'n

Program Planning / Management

Information Assurance / Security

Technical Project Planning / Management

Ongoing Operational / Customer Assessment

Configuration Management / Quality Assurance

SLC Activities

Pre-Systems & Acquisition Deployment	Concept & Technology Development	System Development & Demonstration	Production

User Need	Concept Exploration	Component Adv. Dev't	System Integration	System Demonstration	Low Rate Init Prod'n	Full Rate Init Prod'n

Establish Mission Need → **Plan Program** → **Dev Sys Arch & Alloc Req'ts** → **Design SW Arch** → **Deployment & Site Accept.**

Define System Requirements

Analyze SW Req'ts

Design&Code Modules

Test System

System Change

Operational Performance Oversight

Plan Deployment

Due to limited space, a subset
of SLC Activities appear
on this slide

DFAS SLC
2002 & 2003

SLC Information Products

Pre-Systems & Acquisition	Concept & Technology Development	System Development & Demonstration	Production

Deployment, User Need

Concept Exploration — Component Adv. Dev't

System Integration — System Demonstration

Low Rate Init Prod'n — Full Rate Init Prod'n

Establish Mission Need
  └─ MNS

Plan Program
  AoA ─ LCCE
  APB ─ Mgmt Plan

Define System Requirements
  ─ ORD
  ─ TEMP
  ─ Sys Req'ts
  └─ Infras Svcs Request

Dev Sys Arch & Alloc Req'ts
  ─ Syst Arch
  ─ Infras Svcs Request
  ─ JTA Profile

Analyze SW Req'ts
  ─ SW Req'ts
  ─ Infrast Req'ts

Design SW Arch
  ─ SW Arch Design
  ─ Interface Design
  ─ DB Design

Design&Code Modules
  ─ SW Design
  ─ Code

Test System
  ─ Certs
  ─ Reports
  ─ Procedures
  ─ Test Plan

Plan Deployment
  ─ Installation
  ─ Training
  ─ Transition Plan

Deployment & Site Accept.
  └─ Site Accept Test Rept

System Change

Operational Performance Oversight

Due to limited space, a subset of information products appear on this slide

SLC Reviews, Audits, Milestones

Pre-Systems & Acquisition	Concept & Technology Development	System Development & Demonstration	Production

Deployment User Need | Concept Exploration | Component Adv. Dev't | System Integration | System Demonstration | Low Rate Init Prod'n | Full Rate Init Prod'n

Establish Mission Need
- MNS

Plan Program
- AoA — LCCE
- APB — ASBP

Define System Requirements
- ORD
- TEMP
- Sys Req'ts

Dev Sys Arch & Alloc Req'ts
- Syst Arch

Design SW Arch
- SW Arch Design

Analyze SW Req'ts
- SW Req'ts
- Infrast Req'ts

Design&Code Modules
- SW Design
- Code

Test System

Plan Deployment

Deployment & Site Accept.
- Site Accept Test Rept

System Change

Operational Performance Oversight

SRR   **IPT Rev**   **Rel. Rev**   **PCA**   **FCA**   **IRR**   **PIR**

MS A   **Dec. Rev**   **MS B**   **IPR**   **MS C**   **FRP Rev**

SLC Baselines

User Need		Concept Exploration	Component Adv. Dev't	System Integration	System Demonstration	Low Rate Init Prod'n	Full Rate Init Prod'n

Establish Mission Need

└ MNS

Plan Program

AoA ─ LCCE

APB ─ ASBP

Dev Sys Arch & Alloc Req'ts

└ Syst Arch

Define System Requirements

├ ORD

├ TEMP

└ Sys Req'ts

Design SW Arch

└ SW Arch Design

Analyze SW Req'ts

├ SW Req'ts

└ Infrast Req'ts

Design&Code Modules

├ SW Design

└ Code

Test System

Plan Deployment

Deployment & Site Accept.

└ Site Accept Test Rept

System Change

Operational Performance Oversight

SRR   IPT Rev.   Rel. Rev.   PCA   FCA   IRR   PIR

MS A   Dec. Rev.   MS B   IPR   MS C   FRP Rev.

Program   **Functional**   **Allocated**   **Product Baseline**   **Operational**

System Acquisition

DFAS System Life Cycle - System Acquisition

Pre-Systems Acquisition → ← **Concept & Technology Development** → ← **System Development and Demonstration** → ← **Production and Deployment**

MS A — Decision Review — MS B — Interim Progress Review — MS C — FRP Decision Review

Technology Opportunities and User Needs | Concept Exploration | Component Advanced Development | System Integration | System Demonstration | Low-Rate Initial Production | Full Rate Production & Deployment

Program Planning / Management

- Business Process Review & Improvement
  - BPA/BPR Report
  - Trade-off Studies
- Mission Need Establishment
  - MNS
  - ASDP[1]

- PM Charter
- AoA
- IPT Charters
- COTS Eval. Report
- Acquisition Strategy
- Customer MOU

- Pgm Mgmt Plan
- Data Mgmt Plan
- TEMP
- Econ Analysis[2]/ LCCE

- Component Cost Analysis[3]
- CARD[2]
- APB (I)
- Clinger-Cohen Compliance Rpt[2]

- Continuity of Operations Plan
- APB(U)

- APB (F)
- Clinger-Cohen Compliance Rept

Operation & Performance Oversight
- Audit Reports
- Performance Measurements
- PTR

IOC — FOC

Information Assurance/ Security
- SSAA V1
- SSAA V2
- SSAA V3 (incl. Accreditation Memo)
- SSAA V4

Operational Requirements Definition
- ORD

Technical Project Planning / Management
- Software Development Plan[4]
- SW Process Improvement Plan[4]

System Requirements Analysis
- C4I Support Plan
- System Req'ts Specification
- JTA Profile

System Architecture Design
- Infra. Svcs Request (I)
- System Arch. & Requirements Allocation Desc.

System Development (Build or Purchase)
- Development IPT, or
- Purchase/Customize/Integrate Product(s)

Deployment Planning
- Transition Plan
- Training Plans
- Product Delivery & Installation Plan
- Infrastructure Svcs Request (F)

Changes to Deployed System

Test Planning
- Test Plans

Development Test & Evaluation

Deployment & Site Acceptance Test
- Site Acceptance Test Reports

Operational Test & Evaluation
- Test Scripts (F)
- Test Discrepancy Reports
- Test Reports
- Compliance Certifications

Ongoing Operational / Customer Assessment

- CM Plan
- QA Plan
- QA Audit Reports
- FCA/PCA Checklists

Configuration Management / Quality Assurance

| ORD / APB / TEMP → **Program Baseline** | SRS SARAD → **Functional Baseline** | SRD SIDD / SAD[4] DBDD[4] SDD[4] → **Allocated Baseline** | COTS Product Description Technical Documentation → **Product Baseline** | Per Site → **Operational Baseline** |

SRR — Release Review — FCA PCA — IRR — PIR

Milestone A Presentation to CIO/BIE Council | Decision Rev. Presentation to CIO/BIE Council | Milestone B Presentation to CIO/BIE Council | IPR Presentation to CIO/BIE Council | Milestone C Presentation to CIO/BIE Council | FRP Presentation to CIO/BIE Council

SLC 6.0 5/17/02

LEGEND
- Mgmt Review
- Activity
- Product
- Technical Review
- Audit
- (I) = Initial   (U) = Update
- (F) = Final

FOOTNOTES
1 = Only for Pgms with < $2M Total Ownership Cost
2 = Required only for MAIS Programs
3 = Performed by DFAS Resource Mgmt Office
4 = Not applicable to COTS
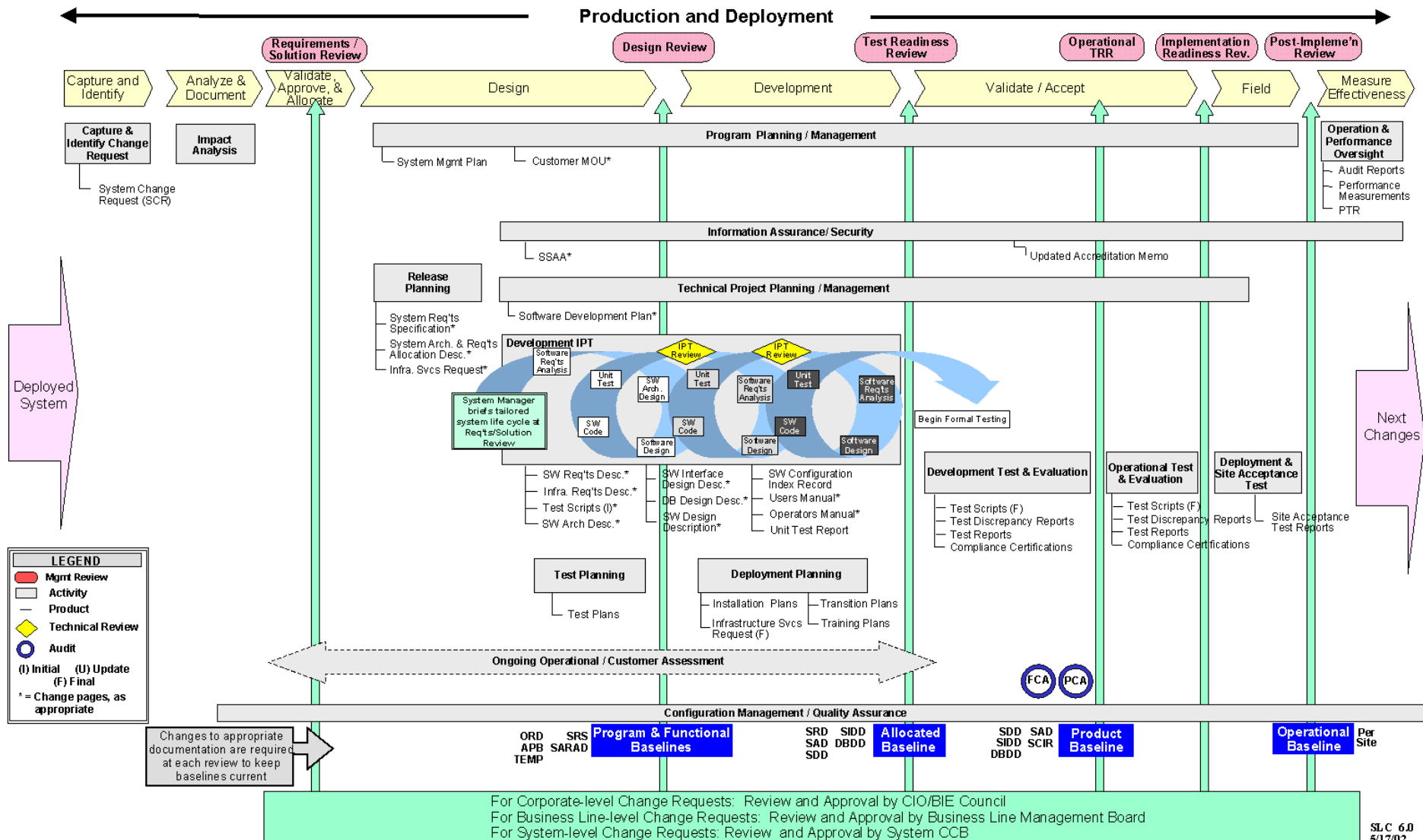
Development Alternatives

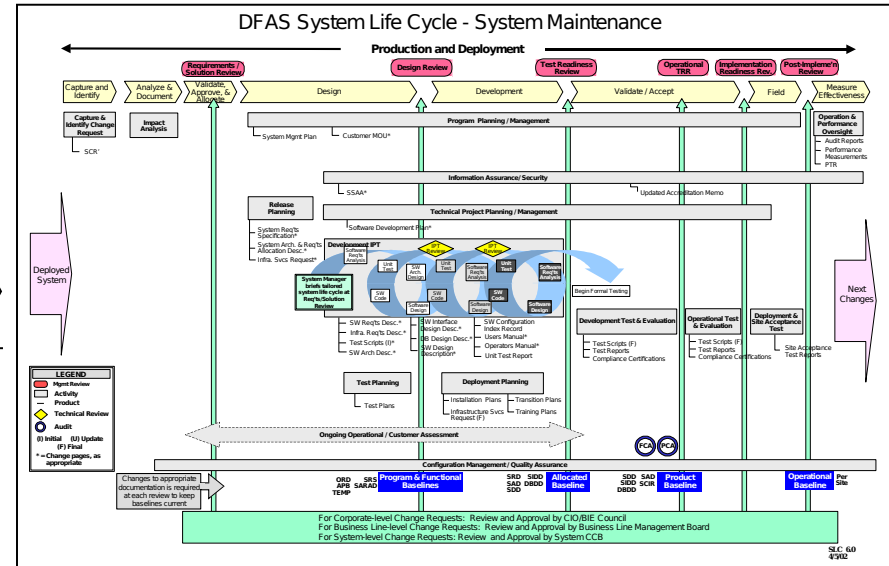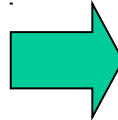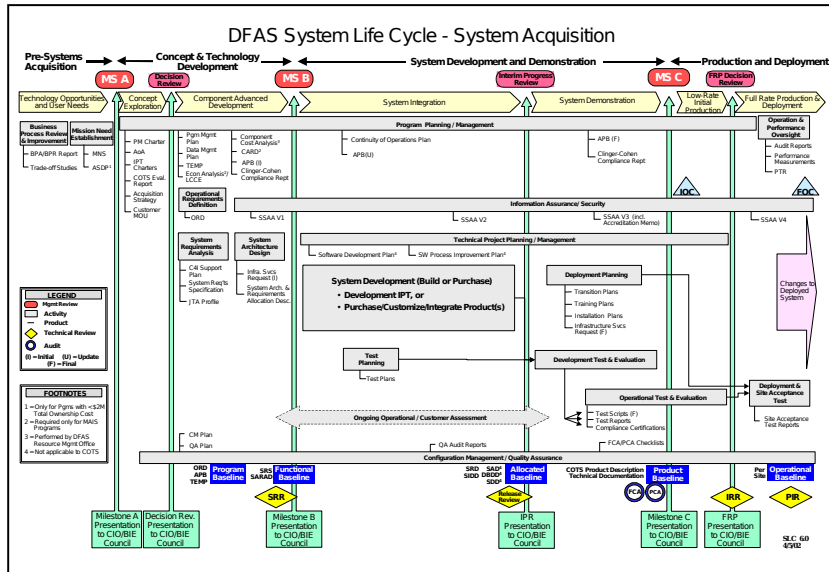**Develop** OR **Purchase / Customize / Integrate**

System Maintenance

DFAS System Life Cycle - System Maintenance

Production and Deployment

Management Reviews:
- Requirements / Solution Review
- Design Review
- Test Readiness Review
- Operational TRR
- Implementation Readiness Rev.
- Post-Impleme'n Review

Activities flow:
Capture and Identify → Analyze & Document → Validate, Approve, & Allocate → Design → Development → Validate / Accept → Field → Measure Effectiveness

Capture & Identify Change Request
- System Change Request (SCR)

Impact Analysis

Operation & Performance Oversight
- Audit Reports
- Performance Measurements
- PTR

Program Planning / Management
- System Mgmt Plan
- Customer MOU*

Information Assurance / Security
- SSAA*
- Updated Accreditation Memo

Technical Project Planning / Management
- Software Development Plan*

Release Planning
- System Req'ts Specification*
- System Arch. & Req'ts Allocation Desc.*
- Infra. Svcs Request*

Development IPT
- Software Req'ts Analysis
- Unit Test
- SW Arch. Design
- Unit Test
- Software Req'ts Analysis
- Unit Test
- Software Req'ts Analysis
- SW Code
- Software Design
- SW Code
- Software Design
- SW Code
- Software Design
- Software Design
- IPT Review
- Begin Formal Testing

System Manager briefs tailored system life cycle at Req'ts/Solution Review

Deployed System

Next Changes

Documents:
- SW Req'ts Desc.*
- Infra. Req'ts Desc.*
- Test Scripts (I)*
- SW Arch Desc.*
- SW Interface Design Desc.*
- DB Design Desc.*
- SW Design Description*
- SW Configuration Index Record
- Users Manual*
- Operators Manual*
- Unit Test Report

Development Test & Evaluation
- Test Scripts (F)
- Test Discrepancy Reports
- Test Reports
- Compliance Certifications

Operational Test & Evaluation
- Test Scripts (F)
- Test Discrepancy Reports
- Test Reports
- Compliance Certifications

Deployment & Site Acceptance Test
- Site Acceptance Test Reports

Test Planning
- Test Plans

Deployment Planning
- Installation Plans
- Infrastructure Svcs Request (F)
- Transition Plans
- Training Plans

Ongoing Operational / Customer Assessment

FCA PCA

LEGEND
- 🔴 Mgmt Review
- ⬜ Activity
- — Product
- 🔶 Technical Review
- 🔵 Audit
- (I) Initial   (U) Update   (F) Final
- * = Change pages, as appropriate

Changes to appropriate documentation are required at each review to keep baselines current

Configuration Management / Quality Assurance

| ORD APB TEMP | SRS SARAD | Program & Functional Baselines | SRD SAD SDD | SIDD DBDD | Allocated Baseline | SDD SIDD DBDD | SAD SCIR | Product Baseline | Operational Baseline | Per Site |

For Corporate-level Change Requests: Review and Approval by CIO/BIE Council
For Business Line-level Change Requests: Review and Approval by Business Line Management Board
For System-level Change Requests: Review and Approval by System CCB

SLC 6.0
5/17/02

DFAS System Life Cycle 6.0

System Acquisition

System Maintenance

DFAS SLC
2002 & 2003

SLC Web Resources

In the
Process Asset Library (PAL)
on
- **www.dfas.mil**
- **DFAS e-portal**
- **development web**

Defense Finance and Accounting Service

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| LIBRARY | CAREERS | CONTACTS | ORGANIZATION | SEARCH |

DFAS System Life Cycle (SLC)

- SLC Diagrams (PowerPoint)

- SLC Tasks

- Tasks Related to:
  - Process Area
  - Management Responsibility
  - Job Role

- Project Plan Template (Project)

- Documentation Standards
  - Documentation Matrix (Excel)

- Return on Investment (ROI) Calculator (Excel)

- Life Cycle Management Policy (Word)
  - References

The DFAS System Life Cycle provides a framework to plan and execute project activities. It facilitates program and software management "best practices," enables managers to assess and manage risk, and provides program flexibility and visibility to DFAS management. The SLC complies with DoD guidance, supports development and commercial-off-the-shelf (COTS) customization approaches, and enables security assessment and planning.

The links to the left ease your review of the SLC. They start with high-level diagrams of the workflow and decision points and conclude with the detail policy. In addition to the diagrams, most users find the SLC tasks links most useful.

The SLC diagrams show both the acquisition and maintenance parts of the SLC. This general framework should be tailored by each program.

The Microsoft Project template is pre-populated with the complete SLC and can be tailored by any program to be their project schedule and tracking tool.

Documentation standards provide a ready reference of templates and the matrix places the documents in SLC perspective.

The return-on-investment (ROI) calculator computes standard ROIs, net present values, and payback periods from a string of cost and benefit streams that the user provides.

Search

DFAS Accessibility Initiative

U.S. Government Computer System: See our Privacy and Security Notice

Last updated: July 25, 2002 at 11:26
Please direct questions/comments about this page to the DFAS PAL Administrator at pal.admin@dfas.mil, DFAS-TA/IN

DFAS SLC
2002 & 2003

SLC Activities

System Life Cycle (SLC) Structure
(Standard Process View)

Pre-Systems Acquisition
  Business Process Review and Improvement
    Identify and Document Initial Requirements
    Review Current Business Process
    Determine Business Performance Requirements - Business Process
      Analysis
    Establish Customer Relationship
  Mission Need Establishment
    Establish Mission Need
  Milestone Review
    Conduct Milestone A Review

Concept and Technology Development
  Program Planning/Management
    Appoint Program Manager
    Perform COTS Availability Research
    Perform COTS Evaluation
    Analyze Acquisition and Implementation Alternatives
    Determine Acquisition Strategy
    Determine Life Cycle Strategy
    Establish Integrated Product Teams
    Maintain Customer Relationship
    Conduct Decision Review
    Establish Project Support
    Determine Program Management Plans
    Determine Integration Management Plans
    Prepare Cost Analysis Requirements Description
    Perform Funds Allocation and Execution
    Estimate Life Cycle Resources
    Perform Economic Analysis/Cost-Benefit Analysis
    Establish Data Standardization Strategy
    Establish Test and Evaluation Strategy
    Establish Risk Management Strategy
    Develop Program Objective Memorandum (POM)
    Develop Budget Submissions
    Establish/Maintain Acquisition Program Baseline
    Perform Release Planning
    Plan Clinger-Cohen Act Compliance
    Manage Program Acquisition
    Establish Program Quality Assurance Strategy
    Manage Program Baseline
  Operational Requirements Definition
    Define Operational Requirements
  System Requirements Analysis
    Identify User/Customer Organizations *(Release Repeatable)*
    Prepare C4I Support Plan
    Define Functional Requirements *(Release Repeatable)*
    Define Information Assurance/Security Requirements
     (Release Repeatable)

SLC Task Details

Release 6.0   SYSTEM LIFE CYCLE   May 17, 2002

Task: Define Operational Requirements
Phase: Concept and Technology Development
Activity: Operational Requirements Definition
Process Area: Requirements Development and Management
Management Responsibility: Business Line Executive, Product Line Executive
Task Level: Enterprise, Application

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1. **Task Name:** Define Operational Requirements

2. **Purpose:** Define the operational concept for a new system. Define the high-level objective for the system, the type of data to be processed, the users to be supported, the initial operational support requirement, and the operational performance parameters.

3. **Roles:** Functional Analyst

4. **References:**

   a. Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01B (see Enclosure E (Operational Requirements Document Generation))

5. **Entrance Criteria:**

   a. Mission Need Statement (MNS) (Word)
   b. Operational Requirements Document (ORD) Standard (Word)

6. **Procedures:**

   a. Establish a Requirements Integrated Product Team (RIPT)
   b. Define the operational capability
   c. Define the threat (e.g., fraud, security)
   d. Identify shortcomings of existing systems
   e. Determine capabilities required for the system
   f. Determine required program support
   g. Identify force structure impacts (e.g., transition, installation, deployment, and training)
   h. Describe schedule
   i. Describe program affordability for the system
   j. Prioritize requirements using need, cost, and schedule as criteria
   k. Determine supportability and interoperability requirements (C4ISP)
   l. Coordinate operational requirements
   m. Obtain approval for operational requirements

7. **Exit Criteria:**

   a. Operational Requirements Document (ORD) (Word)

8. **Estimation Criteria:**

9. **Measures:**

SLC Views by Process Areas

Release 6.0   SYSTEM LIFE CYCLE   May 17, 2002

Information Assurance Only
Process Area View

This list shows the phases and activities of the life cycle structure and the tasks for the Information Assurance process area (highlighted and underlined). To view the entire life cycle structure with the Information Assurance tasks highlighted, select "Entire SLC Structure" below:

[Entire SLC Structure]

Pre-Systems Acquisition
   Business Process Review and Improvement
   Mission Need Establishment
   Milestone Review

Concept and Technology Development
   Program Planning/Management
   Operational Requirements Definition
   System Requirements Analysis
      Define Information Assurance/Security Requirements - *1 *(Release Repeatable)*
   System Architecture Design
      Define and Establish System Security Architecture *(Release Repeatable)*
   Information Assurance/Security
      Conduct DITSCAP Phase 1. Definition
   Milestone Review

System Development and Demonstration
   Program Planning/Management
      Develop Continuity of Operations Plan
   Technical Project Planning/Management
   Test Planning

   System Development   *(Choose Develop OR Purchase/Customize/Integrate)*

   | Develop |
   | Purchase/Customize/Integrate |

   Deployment Planning
      Establish Continuity of Operations Capability
   Developmental Test and Evaluation
   Operational Test and Evaluation
   Information Assurance/Security
      Conduct DITSCAP Phase 2. Verification
      Conduct DITSCAP Phase 3. Validation
   Configuration Management/Quality Assurance
   Milestone Review

Production and Deployment (System Acquisition)
   Information Assurance/Security

   Deployment and Site Acceptance Test
   Operation and Performance Oversight

SLC Views by Job Roles

Release 6.0   SYSTEM LIFE CYCLE   May 17, 2002

Quality Assurance Analyst Only
Practitioner View

This list shows the phases and activities of the life cycle structure and the tasks for the Quality Assurance Analyst role (**highlighted and underlined**). To view the entire life cycle structure with the Quality Assurance Analyst tasks highlighted, select "Entire SLC Structure" below:

[Entire SLC Structure]

Pre-Systems Acquisition
   Business Process Review and Improvement
   Mission Need Establishment
   Milestone Review

Concept and Technology Development
   Program Planning/Management
      Establish Program Quality Assurance Strategy
   Operational Requirements Definition
   System Requirements Analysis
      Perform System Requirements Review (SRR) - *1 *(Release Repeatable)*
   System Architecture Design
   Information Assurance/Security
   Milestone Review

System Development and Demonstration
   Program Planning/Management
   Technical Project Planning/Management
   Test Planning

   System Development   *(Choose Develop OR Purchase/Customize/Integrate)*

Develop
Perform Application Development - *2
Establish Allocated Baseline - *3
Perform SQA Audit of Product
Perform SQA Review of Process
Purchase/Customize/Integrate
Establish Allocated Baseline - *3
Perform SQA Audit of Product
Perform SQA Review of Process

   Deployment Planning
   Developmental Test and Evaluation
      Conduct Test Readiness Review *(Release Repeatable)*
   Operational Test and Evaluation
      Conduct Test Readiness Review *(Release Repeatable)*
   Information Assurance/Security
   Milestone Review

Production and Deployment (System Acquisition)
   Information Assurance/Security
   Deployment and Site Acceptance Test
      Conduct Implementation Readiness Review *(Release Repeatable)*
      Conduct Post Implementation Review - *5 *(Release Repeatable)*

Document Templates

DATA MANAGEMENT PLAN

1. Introduction. Data management planning is critical to the process of system design and development. Business functions and the automation that supports these processes must provide a coherent method for capturing, processing, storing, and providing data associated with an automated information system (AIS). Data elements and their definitions/values have to be documented in a standard way so that the functional users and managers and technical designers and developers understand what data is used by the application and how it is to be processed and used across the enterprise and cross-functional communities. DFAS has made a major commitment to bring standardized data methodology and continuity into and through the Concept and Technology Development and System Development and Demonstration phases of the system life cycle process. The following instructions and template are meant to be a guide on how to assemble the components for a meaningful Data Management Plan (DMP).

2. Purpose. Data standardization reduces the cost, complexity, and overall level of resources expended on the development of software and computer system data components. The purpose of this DMP guide is to provide an assessment framework of data products that should be for a system/application. This DMP also describes how the system/application managers will proceed with developing the fundamental data management outputs for use of standard data or to transition the systems/application for future data standardization.

3. Scope. This plan applies to all DFAS system management, development, and maintenance activities.

4. Inventory of Data Products. The type of system that is in development/maintenance determines the alternatives for mandatory and optional data management products. The DFAS Policy and Architecture team can assist you in determining what data management products best fit your needs. The recommended data products are listed below with a brief description.

Entity Relationship Diagram (ERD). A graphic representation that presents major entities and their attributes and relationships.

Data Element Dictionary. A hard copy document or digital repository of data elements and their meta-data used by one or more systems; a repository of information describing the characteristics of data used to design, monitor, document, protect, and control data in information systems and databases. Lists all of the data elements used in the application with a description/definition of codes, format of data, steward, implementation business functions, table usage, and denormalization.

Data Management Process Description. An overview of the process of managing the data elements within a system/application along with the various steps for determining the impact and cost.

Data Element Mapping. Identification and linking of migration system data elements to one or more equivalent Standard Data Elements, the DoD Finance and Accounting Data Model

Data Management Products for Life Cycle Management

	Data Management Process Description	Entity Relationship Diagram	Data Element Dictionary	Data Element Mappings to Standard
Type I * Legacy System	Mandatory	Optional	Mandatory	Mandatory
Type II * COTS/GOTS/ERPs	Mandatory	Optional	Mandatory	Mandatory
Mission Critical - COTS	Mandatory	Optional	Mandatory	Mandatory
Non-Mission Critical - COTS	Mandatory	Optional	Mandatory	Optional
Less than $2M - COTS	Mandatory	Optional	Mandatory	Optional
Mission Critical - COTS Mod	Mandatory	Optional	Mandatory	Mandatory
Non-Mission Critical - COTS Mod	Mandatory	Optional	Mandatory	
Less than $2M - COTs Mod	Mandatory	Optional	Mandatory	
Type III * Mission Critical - Development	Mandatory	Mandatory	Mandatory	N/A
Non-Mission Critical - Development	Mandatory	Mandatory	Mandatory	Optional
Less than $2M - Development	Mandatory	Mandatory	Mandatory	Optional

* DCII System/Application Types. (I, II, III or N/A)

Type I. Minimal data element documentation is needed since the system is usually a legacy system and will be replaced in the near future with a migratory system (each data management product will be designated by a 'I').

Type II. Type II systems will need information for the application program interfaces (APIs) that will interface with the DFAS Corporate Database (DCD)/(DFAS Corporate Warehouse (DCW). These data management products are marked with a 'II'.

Type III. Type III systems will need the all of the DCD/DCW related data management products for tracking their data in the DFAS Architecture.

Milestone Briefing Guidance

MILESTONE C DECISION BRIEF
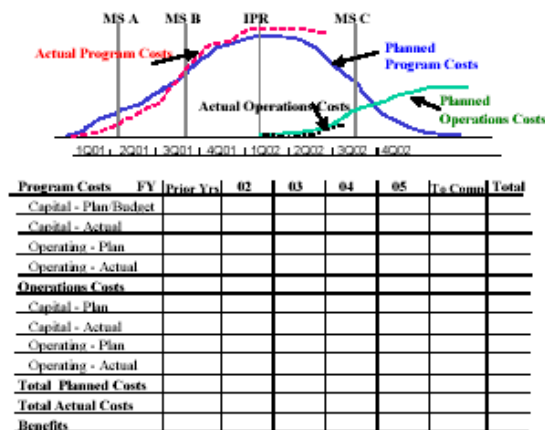## PRESENTATION OUTLINE

The Milestone C Decision Brief is a set of viewgraphs covering the following topics in a sequence selected by the briefer. Some of the material is updated from previous review briefs.

1. Architectural Summary

- *Show and discuss the new concept of operation using the OV-1 and OV-2 charts; and others as needed. For OV and SV charts, see DFAS documentation standard for C4I Support Plan).*
- *Show a schematic diagram of system components and internal interfaces (SV-1 diagram)*
- *Show diagram of external interfaces (SV-4 diagram)*

2. Cost Performance

- <u>Summary Costs</u>. *In a chart similar to below, provide a table and chart showing costs and benefits by year and milestone, updated from the Milestone B Decision Brief and the Interim Progress Review (IPR).*

Program Costs	FY	Prior Yrs	02	03	04	05	To Compl	Total
Capital - Plan/Budget								
Capital - Actual								
Operating - Plan								
Operating - Actual								
Operations Costs								
Capital - Plan								
Capital - Actual								
Operating - Plan								
Operating - Actual								
Total Planned Costs								
Total Actual Costs								
Benefits								

- <u>Return on Investment</u>. *In a table similar to below, updated from the Milestone B Decision brief and the IPR, show the net present value of future benefits, the payback period, the savings-to-cost ratio, the benefits-to-cost ration, and the internal rate of return.*

Future Costs		Future Benefits		Net Present Value of Benefits	Payback Period (Years)	Return on Investment		
Nominal	Present Value	Nominal	Present Value			Savings-to-Cost Ratio	Benefits-to Cost Ratio	Internal Rate of Return
$12,000	$10,155	$27,600	$19,184	$9,029	8	1.5	1.9	14%

- <u>Detailed Costs</u>. *In a table similar to below, show approved estimated costs (from Life Cycle Cost Estimate (LCCE) or other approved document) for major cost categories by year versus actual expenditures (for past years) or proposed revised estimates (for current and future years). Cost categories listed below are examples only. Highlight any changes from the IPR brief.*

Cost Category	Year - 1	Current Year	Year + 1	Year + 2	Etc.
PMO Operations					
Requirements Gathering/Analysis					
Information Assurance					
TSO Cost					
COTS Product Buy/Support					
Training					
Network Infrastructure (DISA)					
Development Testing					
Operational Test and Evaluation					
Maintenance					
Total					

3. Schedule Performance

- *In a table similar to below, list major milestones, their originally planned completion dates, and either their actual completion dates (for completed tasks) or, if relevant, a revised completion date. Milestones shown are examples only.*

Milestone	Original Completion Date	Revised Estimated Completion Date	Actual Completion Date
Requirements Analysis			
Milestone B			
Development – Release 1			
DT&E – Release 1			
Development – Release 2			
DT&E – Release 2			
Milestone C			
OT&E			
IOC			
FOC			

- <u>Deployment schedule</u>. *Identify what capabilities are delivered to what customers and users in what releases. Consider using a fishbone diagram similar to that shown below. This is updated from the Milestone B Decision brief and the IPR.*
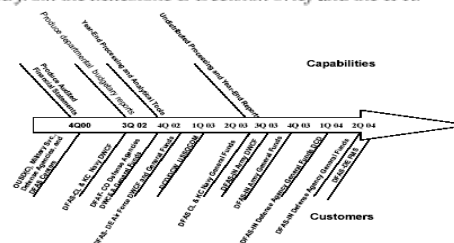
Making it Easy for Programs

- **"How to" procedures; "cookbooks"**
- **Role-specific guidance**
- **Templates**
- **Tailoring assistance (DFAS-DTC)**
- **Training**

SLC 6.0

- **LCM Policy**
- **SLC Diagram**
- **SLC detail of tasks, documents**
- **Team LCM training materials**
- **Tailoring guidance**
- **Web tools**

SLC Benefits

- **Management Visibility**
- **Tailoring to Program Needs**
- **Risk Reduction**
- **Alignment**
  - **DoD requirements; Clinger/Cohen Act; FMFIA**
  - **Capability Maturity Model (CMM) objectives**
  - **DFAS enterprise goals**
- **Consistency**
- **Assessment**
- **Repeatability**
- **Better Decision Making**

Will the SLC be Followed?

- **Why should DFAS be willing to follow a standard?**

SLC's Scorecard Value (1)

- ## Customer
  - – **Understanding the process and checkpoints clearly**
  - – **Visibility of Info. Assurance and Quality throughout**
  - – **Ensure that requirements are adequately handled**
  - – **Ability to rely on DFAS commitments**

- ## Financial
  - – **Better ability to predict and justify costs**
  - – **Consistency of cost justification across programs**
  - – **Better tracking of prediction vs. performance over time**

Cost & Effort

Value Received
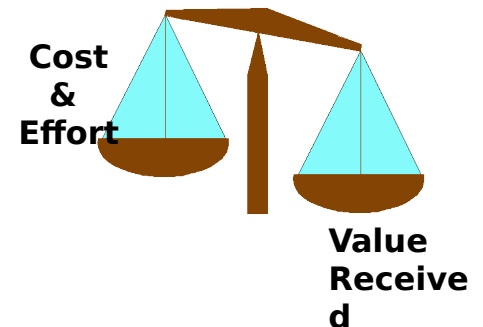
SLC's Scorecard Value (2)

- **Internal Business Processes**
  - **Build consistency & repeatability among programs**
  - **Enable better decisions on use of resources**
  - **Enable fair comparisons among programs**
  - **Uncover problems and issues earlier**

- **Growth and Learning**
  - **Better understanding of program roles and responsibilities throughout DFAS**
  - **Enable personal responsibility for job quality**
 - **Consistency allows executives to concentrate on meaning more than mechanics**

SLC Supports DFAS Strategic Goals

DFAS Goal*	SLC's Contribution
Vision objective: **One organization, One identity**	SLC provides a consistent framework for organizing, tracking, and reporting on programs across DFAS; Enables the same meaning for executive and managerial program decisions across DFAS
Ensure everyone is working toward the same vision and can connect what they're doing to make the vision a reality	Visibility of the acquisition process, providing understanding of development milestones and how current work fits into the whole picture
Deliver business intelligence to enable better decisions	SLC enables DFAS to apply business intelligence to its own acquisition of information systems
Fully satisfy customer requirements and aggressively resolve problems to deliver best value services	Regular process that requires customer participation and resolution of requirements consistently across all DFAS programs; Clear and compatible problem resolution process no matter which part of DFAS is involved
Use performance metrics to drive best business practices and achieve high quality results	SLC provides a consistent framework in which performance metrics become meaningful, comparable, testable, and trackable
Embrace continuous learning for our work force to ensure critical, high quality skill sets	Clear definition of job roles and responsibilities and how they relate to other job roles; Enables people to see beyond their immediate tasks to understand the whole

* source: www.dfas.mil/agency/strategy.htm

Maximizing DFAS Benefits

DFAS Value Through SLC

Executive Support

Expectation of Use

Tools
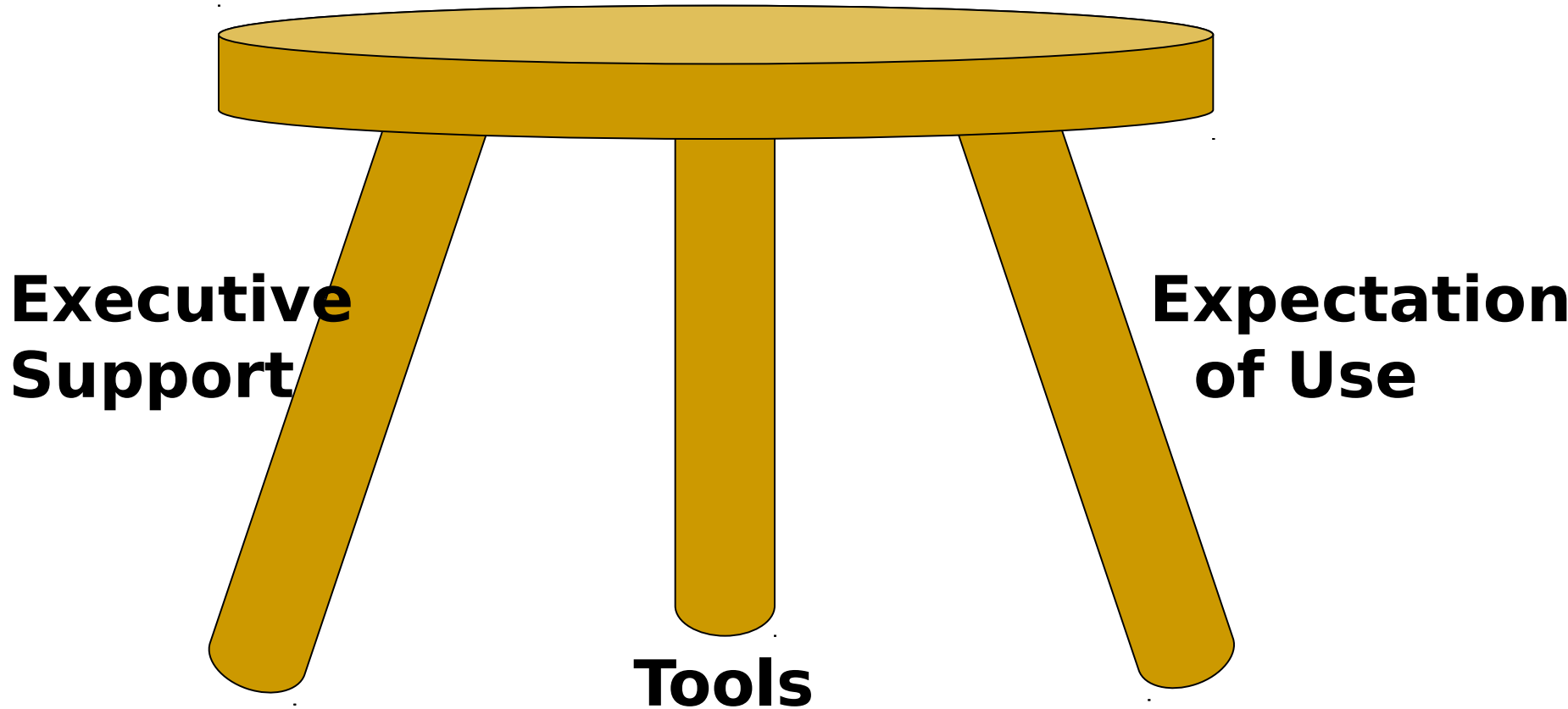
Summary

- **LCM enhances visibility, risk reduction, consistency, and confidence...
leading to the ultimate success of the Program**

- **DFAS has a <u>single</u> system life cycle**

- **SLC covers both development & maintenance**

- **SLC focuses on activities / reviews**

- **Programs tailor the DFAS SLC to suit**
  - Implementation Strategy
  - Complexity / Cost / Oversight
  - Management Risk

- **SLC is accessible (PAL on e-portal & web)**